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EXAMINER

PATEL, ASHOKKUMAR B

ART UNIT

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2154

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/642,475	<b>Applicant(s)</b> BOYLAN ET AL.	
	<b>Examiner</b> Ashok B. Patel	<b>Art Unit</b> 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 5-8, 14, 15, 24, 30, 31, 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-13, 16-23, 25-29, 32-35 and 37-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-43 are subject to examination. Claims 5-8,14,15,24,30,31,36 have been cancelled.

### ***Response to Arguments***

2. Applicant's arguments filed 09/15/2005 have been fully considered but they are not persuasive for the following reasons:

#### **Claim Rejections Under 35 U.S.C. § 103(a):**

#### **Independent Claims 1, 22, 34, and 42**

#### **Applicant's argument:**

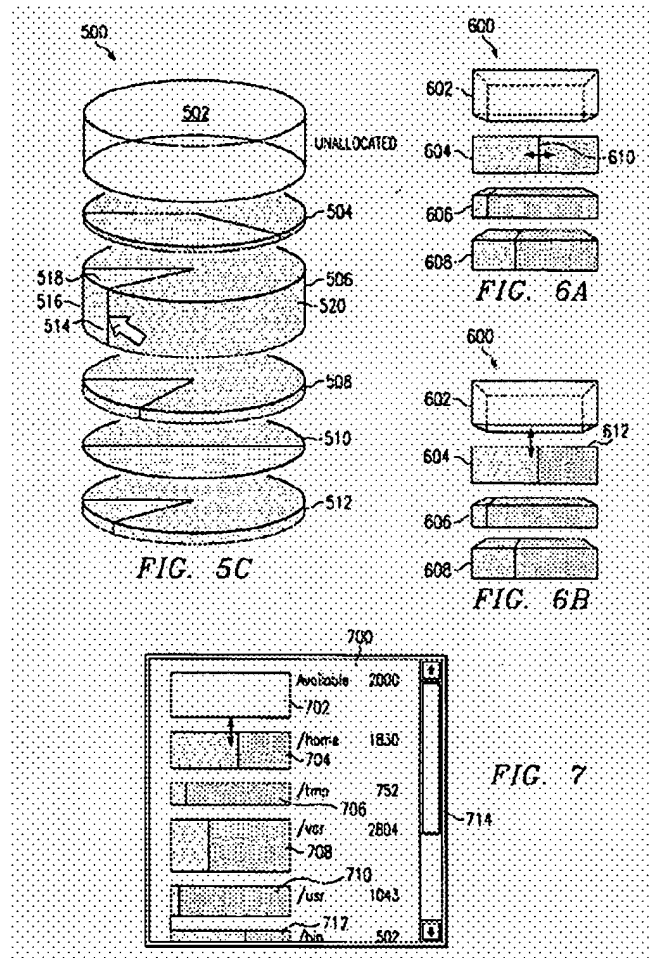
"In particular, with respect to amended independent claim 1, the cited references do not teach, describe, or suggest a "display comprising a grid space having two or more individually selectable rectangles, each rectangle corresponding to a distinct portion of the network addresses of the set, and wherein each rectangle is displayed with either the first visual indicator or the second visual indicator."

"Wilkes, however, does not teach, suggest, or describe the recitation of amended claim 1 requiring a grid space having two or more individually selectable rectangles, each rectangle corresponding to a distinct portion of the set of network addresses. This recitation is also not taught or suggested by Johnston. is allowable over the cited  
Accordingly, the applicants respectfully submit that claim 1 art."

#### **Examiner's response:**

Johnson teaches the technique as Johnson calls it in Abstract, "A method and apparatus in a data processing system for displaying resource allocation information.

Allocations of a resource are identified. A plurality of cylinders is displayed, wherein each cylinder within the plurality of cylinders provides a graphical representation of an allocation of the resource relative to other cylinders within the plurality of cylinders.”



Now, as shown above in Figs. 5C, 6B and 7, col. 7, line 17-61, Johnson also teaches “An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two

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dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed", and "reserved". Of course, other types of geometric shapes in a stacked form may be used. Mixes of the shapes, such as cylinders and boxes also may be employed. For example, in FIGS. 6A and 6B, illustrations of a control for managing resources is depicted in accordance with a preferred embodiment of the present invention. GUI 600 is a control that includes boxes 602-608 in which the boxes are used to indicate resource allocation in a fashion similar to that using cylinders. Box 602 shows unallocated resources, while boxes 604-608 show allocated resources and indication of the consumed and unconsumed portions of the allocated resources. Hot spots for adjusting the allocations also may be provided for the boxes. For example, in FIG. 6A, hot spot 610 is a vertical line dividing consumed and unconsumed portions of box 604 while in FIG. 6B, hot spot 612 is a horizontal line at the top of box 604.

Next, FIG. 7 is a diagram of a GUI in accordance with a preferred embodiment of the present invention. GUI 700 includes rectangles 702-712. Additional resource allocations are present but are shown in FIG. 7. These undisplayed resource allocations can be viewed using scroll bar 714. Further GUI 700 also includes annotations, such as "Available", "2000", "/home", and "1830" to identify the

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apportionment of the resource and the amount of resource actually allocated to the apportionment.

Thus, the present invention provides a mechanism in which a control is able to display an apportion resources, unallocated resources, available resources within apportionment, and currently consumed resources in apportionments in a single graphical control. Further, this control may also be used to manipulate or change the apportionments and the allocations of resources."

Thus, this technique is applied to the resources of Wilkes which are "address spaces" to enhance the displaying of these resources to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

**Claim Rejections Under 35 U.S.C. § 102(b):**

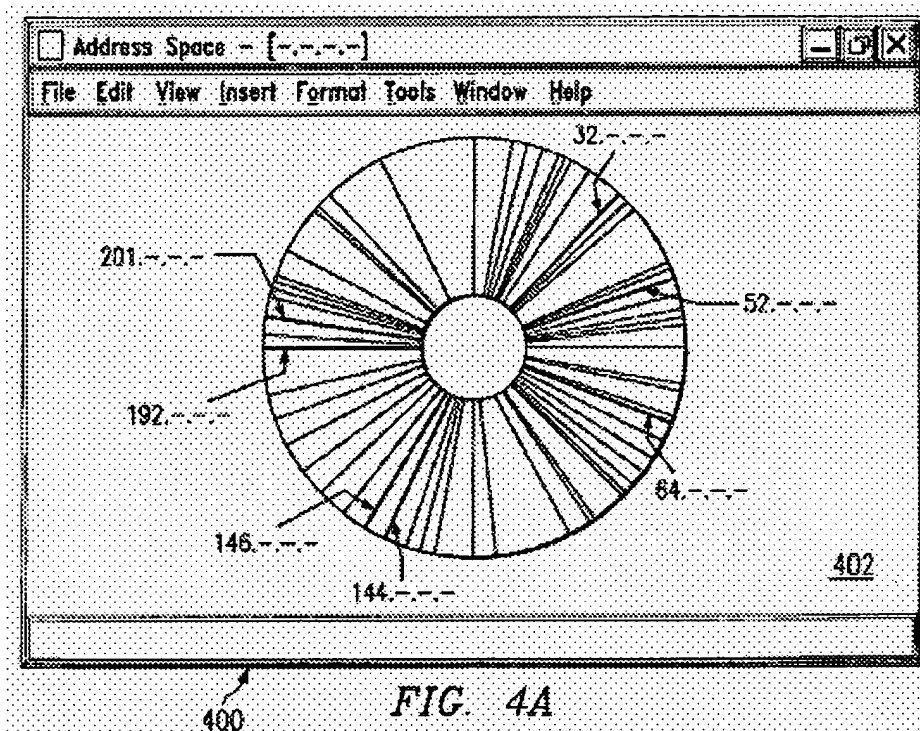
**Claims 37-41:**

**Applicant's argument:**

"In the Office Action, claims 37-41 were rejected under 35 U.S.C. §102(b) as being anticipated by Wilkes. The applicants respectfully submit that Wilkes does not teach each and every element of these claims."

**Examiner's response:**

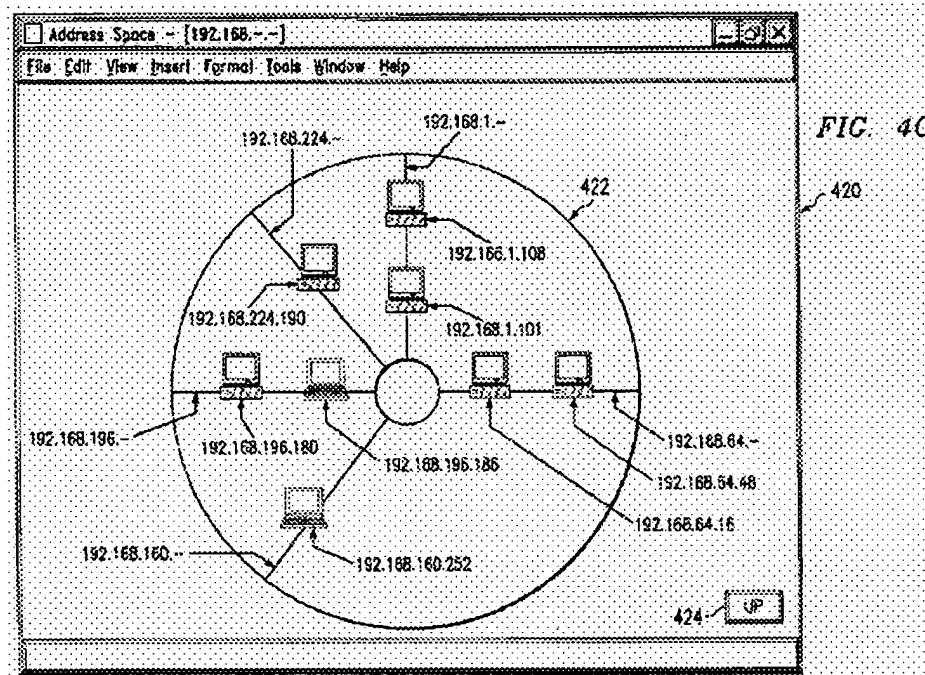
Wilkes teaches at page 4, para. [0047]-[0055], and Figs. 4A through 4D,



"FIG. 4A illustrates window 400 displaying address space disk 402, which represents an entire IP address space. More particularly, FIG. 4A may represent a subset of the IP address space, such as the addresses used by a particular enterprise or the address space filtered by a given criteria."

And Wilkes shows further the details of Fig. 4A inclusions by describing Fig. 4C (shown below) in para. [0051], "FIG. 4C illustrates window 420 displaying address space wheel 422, which represents a value of the second quad in the address space. In the depicted example, address space wheel 422 may depict the addresses used by an enterprise and particular addresses meeting a given criteria. These

addresses may include entities that, for example, are running a specified operating system."



Also, Wilkes teaches at page 4, para. [0052], "Window 420 may include an interface that allows a user to manipulate the wheel to zoom in or out, rotate the wheel, or move the wheel. More simply, window 420 may include an interface that allows a user to select an entity on the wheel. For example, the user may select an entity by placing a mouse cursor over an icon and selecting the icon with a mouse click. Alternatively, the user may enter an address value in a text field. Window 420 also includes "UP" button 424, which allows a user to navigate to the address space cylinder level."

Thus, Wilkes teaches every element of these claims.



***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1—4,9-13,16-23, 25-29, 32-35, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkes (US 2004/0070632 A1) in view of Johnson et al. (hereinafter Johnson)(US 6, 404, 444 B1).

**Referring to claim 1,**

The reference Wilkes teaches at page 4, para. [0047], FIGS. 4A-4D depict example screens of display illustrating visual representations of an address space in accordance with a preferred embodiment of the present invention. FIG. 4A illustrates window 400 displaying address space disk 402, which represents an entire IP address space. More particularly, FIG. 4A may represent a subset of the IP address space, such as the addresses used by a particular enterprise or the address space filtered by a given criteria. In the depicted example, address space disk 402 may depict the addresses used by an enterprise and particular addresses meeting a given criteria. For example, the following addresses are highlighted: 32.---.---.---, 52.---.---.---, 64.---.---.---, 144.---.---.---, 146.---.---.---, 192.---.---.---, and 201.---.---.---. These addresses may include nodes that are running a specified operating system. (rendering a display of a set of the networking addresses and accessing definitional information of a set of the networking addresses).

The reference fails to teach rendering a display wherein the display provides a first visual indicator having a first value of a first attribute and a second visual indicator having a second value of the first attribute, and the definitional information defining one or more attributes and the display comprising a grid space having two or more individually selectable rectangles, each rectangle corresponding to a distinct portion and wherein each rectangle is displayed with either the first visual indicator or the second visual indicator.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (rendering a display wherein the display provides a first visual indicator for networking addresses having a first value of a first attribute ("allocated"), wherein a second visual indicator having a second value of the first attribute, and accessing definitional information, the definitional information defining one or more attributes). Additionally, the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the

resource.” The reference also teaches in col. 7, lines 17-61 and Figs 6A and 6B, “An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be “consumed”, “unconsumed”, and “reserved”. (the display comprising a grid space having two or more individually selectable rectangles, each rectangle corresponding to a distinct portion and wherein each rectangle is displayed with either the first visual indicator or the second visual indicator. “Note: As explained above, these teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.”)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes’s mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as “consumed”, “unconsumed”, and “reserved” be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of

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Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

**Referring to claim 2,**

Keeping in mind the teachings of the reference Wilkes as stated above, The reference Wilkes teaches the computer-implemented method of claim 1, further comprising: determining an a start address and mask size of the set of the networking addresses to be displayed (Figs 4A through 4D).

The reference fails to teach to set the boundary of the display.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (Thus the reference teaches to set the boundary of the display.) (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but,

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also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed by setting the boundaries within the address space.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

**Referring to claims 3 and 4,**

The reference Wilkes teaches computer-implemented method of claim 1, wherein determining a start address and mask size of the set comprises receiving a user selection to zoom out of a current displayed set of the networking addresses to display a set containing a larger number of addresses, and computer-implemented method of claim 1, wherein determining a start address and mask size of the set comprises receiving a user selection to zoom in on a current displayed set of the networking addresses. (page 4, para. [0052])

**Referring to claims 9, 10, 11, 12 and 13,**

Keeping in mind the teachings of the reference Wilkes as stated above in claim 1, the reference fails to teach the computer-implemented method of claim 4, wherein the area of each of the rectangles is representative within the rectangles, and the computer-implemented method of claim 1, wherein the first visual indicator is a first color and wherein the second visual indicator is a second color, and the computer-implemented method of claim 1, wherein the first attribute is status, and the computer-implemented method of claim 11, wherein the first visual indicator indicates an allocated status and

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the second visual indicator indicates a free status, and computer-implemented method of claim 12, wherein rendering a display further comprises providing a third visual indicator for the first value and wherein the third visual indicator indicates a reclaimed status.

The reference Johnson teaches the computer implemented method of claim 5, wherein the at least one rectangle is provided with the second visual indicator in addition to the first visual indicator (Figs. 6A and 6B), and the computer-implemented method of claim 5, wherein the area of each of the blocks is representative within the blocks (Figs. 6A and 6B), and the computer-implemented method of claim 1, wherein the first visual indicator is a first color and wherein the second visual indicator is a second color (col. 5, lines 20-42), and the computer-implemented method of claim 1, wherein the first attribute is status (Fig. 5, "allocated") , and the computer-implemented method of claim 11, wherein the first visual indicator indicates an allocated status and the second visual indicator indicates a free status and computer-implemented method of claim 12, wherein rendering a display further comprises providing a third visual indicator for the first value and wherein the third visual indicator indicates a reclaimed status. (col. 7, lines 17-44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

**Referring to claim 16,**

Keeping in mind the teachings of the reference Wilkes as stated above, the reference also teaches The reference Wilkes teaches at page 4, para.[0047], FIGS. 4A-4D depict example screens of display illustrating visual representations of an address space in accordance with a preferred embodiment of the present invention. FIG. 4A illustrates window 400 displaying address space disk 402, which represents an entire IP address space. More particularly, FIG. 4A may represent a subset of the IP address space, such as the addresses used by a particular enterprise or the address space filtered by a given criteria. In the depicted example, address space disk 402 may depict the addresses used by an enterprise and particular addresses meeting a given criteria. For example, the following addresses are highlighted: 32.---.---.---, 52.---.---.---, 64.---.---.---, 144.---.---.---, 146.---.---.---, 192.---.---.---, and 201.---.---.---. These addresses may include nodes that are running a specified operating system. (rendering a display of a set of the networking addresses and accessing definitional information of a set of the networking addresses, accessing the definitional information defining one or more attributes for the networking addresses of the set;)( the parent network and subordinate networks for which the networking addresses are assigned).

The reference fails to teach the first attribute , the first value and the second value.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (rendering a display wherein the display provides a first visual indicator for networking addresses having a first value of a first attribute ("allocated"), wherein a second visual indicator having a second value of the first attribute, and accessing definitional information, the definitional information defining one or more attributes). Additionally, the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the resource." The reference also teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles



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would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed" (the first value and the second value) , and "reserved". (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by a data processing system as taught by Johnson.

**Referring to claim 17, 18 and 19,**

Keeping in mine the teachings of the reference Wilkes as stated above, the reference fails to teach wherein rectangles are individually selectable to zoom the display, and computer-implemented method of claim 17, wherein rendering the display further comprises displaying a value when a cursor is placed over an individual

rectangle and computer-implemented method of claim 17, wherein rectangle comprise individual networking addresses.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." Additionally, the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the resource." The reference also teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might

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be "consumed", "unconsumed", and "reserved". "Hot spots for adjusting the allocations also may be provided for the boxes. For example, in FIG. 6A, hot spot 610 is a vertical line dividing consumed and unconsumed portions of box 604 while in FIG. 6B, hot spot 612 is a horizontal line at the top of box 604.", col. 7, lines 40-44). (wherein rendering the display comprises displaying individual blocks that are adjacent and span grid spaces of a map that are individually selectable, and computer-implemented method of claim 17, wherein displaying individual blocks that span grid spaces that are individually selectable comprises displaying a value when a cursor is placed over the individual grid space – well known in the art) (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by a data processing system as taught by Johnson.

**Referring to claims 20 and 21,**

The reference Wilkes teaches the computer-implemented method of claim 1, wherein the networking address space is layer three of the communications protocol

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stack, and computer-implemented method of claim 1, wherein networking address space is layer four of the communications protocol stack. (Fig. 3, page 3, para.[0041]-[0044])

**Referring to claim 22,**

Claim 22 is a claim to a computer system for illustrating networking addresses in accordance with claim 1. Therefore, claim 22 is rejected for the reasons set forth for claim 1.

**Referring to claim 23,**

Claim 23 is a claim to a computer system for illustrating networking addresses in accordance with claim 2. Therefore, claim 23 is rejected for the reasons set forth for claim 2.

**Referring to claim 25,**

Claim 25 is a claim to a computer system for illustrating networking addresses in accordance with claims 9, 10, 11, 12 and 13. Therefore, claim 25 is rejected for the reasons set forth for claims 9, 10, 11, 12 and 13.

**Referring to claim 26,**

Claim 26 is a claim to a computer system for illustrating networking addresses in accordance with claims 9, 10, 11, 12 and 13. Therefore, claim 26 is rejected for the reasons set forth for claims 9, 10, 11, 12 and 13.

**Referring to claim 27,**

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Claim 27 is a claim to a computer system for illustrating networking addresses in accordance with claims 9, 10, 11, 12 and 13. Therefore, claim 27 is rejected for the reasons set forth for claims 9, 10, 11, 12 and 13.

**Referring to claim 28,**

Claim 28 is a claim to a computer system for illustrating networking addresses in accordance with claims 9, 10, 11, 12 and 13. Therefore, claim 28 is rejected for the reasons set forth for claims 9, 10, 11, 12 and 13.

**Referring to claim 29,**

Claim 29 is a claim to a computer system for illustrating networking addresses in accordance with claims 9, 10, 11, 12 and 13. Therefore, claim 29 is rejected for the reasons set forth for claims 9, 10, 11, 12 and 13.

**\Referring to claim 32,**

Claim 32 is a claim to a computer system for illustrating networking addresses in accordance with claim 16 . Therefore, claim 32 is rejected for the reasons set forth for claim 16.

**Referring to claim 33,**

Claim 33 is a claim to a computer system for illustrating networking addresses in accordance with claims 20 and 21. Therefore, claim 33 is rejected for the reasons set forth for claims 20 and 21.

**Referring to claims 34 and 35**

Claims 34 and 35 are claims to a computer readable medium containing instructions that when performed by a computer perform the steps of method of claim 1. Therefore, claim 34 is rejected for the reasons set forth for claim 1.

**Referring to claim 42,**

The reference Wilkes teaches at page 4, para.[0047], FIGS. 4A-4D depict example screens of display illustrating visual representations of an address space in accordance with a preferred embodiment of the present invention. FIG. 4A illustrates window 400 displaying address space disk 402, which represents an entire IP address space. More particularly, FIG. 4A may represent a subset of the IP address space, such as the addresses used by a particular enterprise or the address space filtered by a given criteria. In the depicted example, address space disk 402 may depict the addresses used by an enterprise and particular addresses meeting a given criteria. For example, the following addresses are highlighted: 32.---.---.---, 52.---.---.---, 64.---.---.---, 144.---.---.---, 146.---.---.---, 192.---.---.---, and 201.---.---.---. These addresses may include nodes that are running a specified operating system. (displaying the arrangement of the networking addresses and definitional information);

The reference fails to teach rendering constructing a multi-dimensional grid having multiple individually selectable positions, each position representing a linear index in which each position in the arrangement corresponds to a specific value or group of values of the index, and wherein the data set includes definitional information defining one or more attributes, displaying the arrangement such that at each position in the arrangement, a first visual indicator is provided for having a first value for the first

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attribute and a second visual indicator is provided for having a second value for the first attribute.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (rendering a display wherein the display provides a first visual indicator for networking addresses having a first value of a first attribute ("allocated"), wherein a second visual indicator having a second value of the first attribute, and accessing definitional information, the definitional information defining one or more attributes). Additionally, the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the resource." The reference also teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles

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would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed", and "reserved". (Note: These teachings are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by a data processing system as taught by Johnson.

**Referring to claim 43,**

The reference Wilkes teaches the computer-implemented method of claim 42, wherein the networking addresses are Internet Protocol addresses. (Fig. 2A).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –



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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**6.** Claims 37- 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Wilkes (US 2004/0070632 A1)

**Referring to claim 37,**

The reference Wilkes teaches a computer-implemented method of illustrating networking address structure, comprising:

accessing definitional information of a set of the networking addresses, the definitional information defining at least one parent network and at least one subordinate network of the parent network for the networking addresses of the set ( page 2, para. [0028], "In the depicted example, servers 104, 114 are connected to network 102. Server 104 provides access to storage unit 106" ", Fig. 4C); and

rendering a display of the at least one parent network and at least one subordinate network of the parent network, wherein the display is a tree illustrating a hierarchical structure of the parent and subordinate networks. (Fig. 4C)

**Referring to claim 38,**

The reference Wilkes teaches the computer-implemented method of claim 37, wherein the tree lists a name assigned to each of the parent and subordinate networks of the hierarchical structure according to the definitional information. (Fig. 4C)

**Referring to claim 39,**

The reference Wilkes teaches the computer-implemented method of claim 38, wherein the tree provides an indicator of the type of networking addresses used for the

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parent and subordinate networks according to the definitional information. (Fig. 4C)

**Referring to claim 40,**

The reference Wilkes teaches the computer-implemented method of claim 39, wherein the tree provides an indicator of whether the subordinate networks are aggregated with the parent network according to the definitional information. (Fig. 4C)

**Referring to claim 41,**

The reference Wilkes teaches the computer-implemented method of claim 40, wherein the tree further provides selections for expanding and collapsing the display of the subordinate networks of a parent (page 4, para. [0052], "Window 420 may include an interface that allows a user to manipulate the wheel to zoom in or out, rotate the wheel, or move the wheel. More simply, window 420 may include an interface that allows a user to select an entity on the wheel. For example, the user may select an entity by placing a mouse cursor over an icon and selecting the icon with a mouse click. Alternatively, the user may enter an address value in a text field. Window 420 also includes "UP" button 424, which allows a user to navigate to the address space cylinder level.")

***Conclusion***

**Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses,

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to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 8:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp

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